EUROPEAN PATENT OFFICE
U.S. PATENT AND TRADEMARK OFFICE

CPC NOTICE OF CHANGES 859

DATE: MAY 1, 2020

PROJECT RP0478

The following classification changes will be effected by this Notice of Changes:

Action	**Subclass**	**Group(s)**
SCHEME:		
Symbols Deleted:	F16H	2019/0627, 19/0631
	F16H	2048/108
Symbols New:	F16H	19/0628
Titles Changed:	F16H	2019/0609, 19/0645, 19/0654, 2019/0668, 2019/0681, 2019/0686
	F16H	2025/063, 25/2015, 2025/2028, 2025/2053, 2025/2059, 2025/2078, 2025/2445
	F16H	55/17, 55/18
	F16H	57/02004, 57/0408, 57/0439, 57/0458
	F16H	2059/0239
	F16H	61/0006, 61/0009, 2061/0455, 2061/047, 2061/0474, 2061/223, 61/2807, 2061/307
DEFINITIONS:		
Definitions New:	F16H	19/005, 19/006, 19/025, 19/0604, 2019/0609, 2019/0613, 19/0618, 19/0622, 19/0628, 19/0636, 19/064, 19/0645, 19/065, 19/0654, 19/0663, 19/0672, 2019/0681, 2019/069, 2019/0695
Definitions Modified:	F16H	48/00
	F16H	55/17, 55/18, 55/22

No other subclasses/groups are impacted by this Notice of Changes.

This Notice of Changes includes the following *[Check the ones included]:*

1. CLASSIFICATION SCHEME CHANGES
   - ☒ A. New, Modified or Deleted Group(s)
   - ☐ B. New, Modified or Deleted Warning(s)
   - ☐ C. New, Modified or Deleted Note(s)
   - ☐ D. New, Modified or Deleted Guidance Heading(s)
2. DEFINITIONS
   - ☒ A. New or Modified Definitions (Full definition template)
   - ☒ B. Modified or Deleted Definitions (Definitions Quick Fix)
3. ☒ REVISION CONCORDANCE LIST (RCL)

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4. ☒ CHANGES TO THE CPC-TO-IPC CONCORDANCE LIST (CICL)
5. ☐ CHANGES TO THE CROSS-REFERENCE LIST (CRL)

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1. CLASSIFICATION SCHEME CHANGES

A. New, Modified or Deleted Group(s)

F16H - GEARINGS

Type*	**Symbol**	**Indent Level Number of dots (e.g. 0, 1, 2)**	**Title "CPC only" text should normally be enclosed in {curly brackets}****	**Transferred to#**
M	F16H 2019/0609	3	{the reciprocating motion being created by at least one drum or pulley with different diameters, using a differential effect}	
U	F16H 19/0622	3	{for converting reciprocating movement into oscillating movement and vice versa, the reciprocating movement is perpendicular to the axis of oscillation}	
D	F16H 2019/0627	4	{the flexible member, e.g. a cable, being wound with one string to a drum and unwound with other string from the same or an other drum to create reciprocating movement of the flexible member}	<Administrative transfer to F16H19/0628 INV>
N	F16H 19/0628	4	{the flexible member, e.g. a cable, being wound with one string to a drum and unwound with the other string to create reciprocating movement of the flexible member}	
D	F16H 19/0631	3	{the flexible member, e.g. a cable, being wound with one string to a drum and unwound with other string from the same or an other drum to create reciprocating movement of the flexible member}	<Administrative transfer to F16H19/0628>

Type*	**Symbol**	**Indent Level Number of dots (e.g. 0, 1, 2)**	**Title "CPC only" text should normally be enclosed in {curly brackets}****	**Transferred to#**
M	F16H 19/0645	3	{the flexible push or pull member having guiding means, i.e. the flexible member being supported at least partially by a guide to transmit the reciprocating movement (non-buckling chains F16H19/0636)}	
M	F16H 19/0654	3	{using twisting movement of flexible members to modify the axial length of the mechanism}	
M	F16H 2019/0668	3	{with open loop, e.g. with the free ends of the flexible member fixed to the casing, e.g. when the drive means are arranged on the carriage}	
M	F16H 2019/0681	3	{the flexible member forming a closed loop}	
M	F16H 2019/0686	4	{the flexible member being directly driven by a pulley or chain wheel}	
M	F16H 2025/063	3	{the intermediate members being balls engaging on opposite cam discs}	
M	F16H 25/2015	3	{Means specially adapted for stopping actuators in the end position; Position sensing means}	
M	F16H 2025/2028	3	{using screw profiles with high efficiency for converting reciprocating motion into oscillating movement}	
M	F16H 2025/2053	3	{Screws in parallel arrangement driven simultaneously with an output member moved by the screws}	

Type*	**Symbol**	**Indent Level Number of dots (e.g. 0, 1, 2)**	**Title "CPC only" text should normally be enclosed in {curly brackets}****	**Transferred to#**
M	F16H 2025/2059	3	{Superposing movement by two screws, e.g. with opposite thread direction (telescopic screws with three screw members F16H25/2056)}	
M	F16H 2025/2078	5	{the rotor being integrated with the nut or screw body}	
M	F16H 2025/2445	4	{Supports or other means for compensating misalignment or offset between screw and nut}	
D	F16H 2048/108	3	{characterised by intermeshing orbital gears, i.e. at least two intermeshing orbital gears}	<Administrative transfer to F16H48/11 INV>
M	F16H 55/17	2	Toothed wheels (worm wheels F16H55/22; chain wheels F16H55/30)	
M	F16H 55/18	3	Special devices for taking up backlash {(for gears having orbital motion F16H1/2863)}	
M	F16H 57/02004	2	{the gears being positioned relative to one another by rolling members or by specially adapted surfaces on the gears, e.g. by a rolling surface with the diameter of the pitch circle}	
M	F16H 57/0408	2	{Exchange, draining or filling of transmission lubricant}	
M	F16H 57/0439	4	{using multiple pumps with different power sources or a single pump with different power sources, e.g. one and the same pump may selectively be driven by either the engine or an electric motor}	

Type*	**Symbol**	**Indent Level Number of dots (e.g. 0, 1, 2)**	**Title "CPC only" text should normally be enclosed in {curly brackets}****	**Transferred to#**
M	F16H 57/0458	2	{Oil-mist or spray lubrication; Means to reduce foam formation (reducing foam formation by venting F16H57/027)}	
M	F16H 2059/0239	2	{Up- and down-shift or range or mode selection by repeated movement (mechanical step by step selection devices F16H63/14)}	
M	F16H 61/0006	2	{Electronic control units for transmission control, e.g. connectors, casings or circuit boards}	
M	F16H 61/0009	2	{Hydraulic control units for transmission control, e.g. assembly of valve plates or valve units}	
M	F16H 2061/0455	2	{during shifts involving three or more shift members, e.g. release of 3-4 clutch, 2-4 brake and apply of forward clutch C1}	
M	F16H 2061/047	2	{by preventing or solving a tooth butt situation upon engagement failure due to misalignment of teeth}	
M	F16H 2061/0474	2	{by smoothing engagement or release of positive clutches; Methods or means for shock free engagement of dog clutches (for tooth butt situations F16H2061/047)}	
M	F16H 2061/223	2	{Electrical gear shift lock, e.g. locking of lever in park or neutral position by electric means if brake is not applied; Key interlock, i.e. locking the key if lever is not in park position}	

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Type*	**Symbol**	**Indent Level Number of dots (e.g. 0, 1, 2)**	**Title "CPC only" text should normally be enclosed in {curly brackets}****	**Transferred to#**
M	F16H 61/2807	3	{using electric control signals for shift actuators, e.g. electro-hydraulic control therefor (F16H61/30, F16H61/32 take precedence; methods for generating shift signals F16H61/0213)}	
M	F16H 2061/307	4	{Actuators with three or more defined positions, e.g. three position servos}	

*N = new entries where reclassification into entries is involved; C = entries with modified file scope where reclassification of documents from the entries is involved; Q = new entries which are firstly populated with documents via administrative transfers from deleted (D) entries. Afterwards, the transferred documents into the Q entry will either stay or be moved to more appropriate entries, as determined by intellectual reclassification; T= existing entries with enlarged file scope, which receive documents from C or D entries, e.g. when a limiting reference is removed from the entry title; M = entries with no change to the file scope (no reclassification); D = deleted entries; F = frozen entries will be deleted once reclassification of documents from the entries is completed; U = entries that are unchanged.

NOTES:

- **No {curly brackets} are used for titles in CPC only subclasses, e.g. C12Y, A23Y; 2000 series symbol titles of groups found at the end of schemes (orthogonal codes); or the Y section titles. The {curly brackets} are used for 2000 series symbol titles found interspersed throughout the main trunk schemes (breakdown codes).
- U groups: it is obligatory to display the required "anchor" symbol (U group), i.e. the entry immediately preceding a new group or an array of new groups to be created (in case new groups are not clearly subgroups of C-type groups).Always include the symbol, indent level and title of the U group in the table above.
- All entry types should be included in the scheme changes table above for better understanding of the overall scheme change picture. Symbol, indent level, and title are required for all types.
- "Transferred to" column must be completed for all C, D, F, and Q type entries. F groups will be deleted once reclassification is completed.
- When multiple symbols are included in the "Transferred to" column, avoid using ranges of symbols in order to be as precise as possible.
- For administrative transfer of documents, the following text should be used: "< administrative transfer to XX>", "<administrative transfer to XX and YY simultaneously>", or "<administrative transfer to XX, YY, ...and ZZ simultaneously>" when administrative transfer of the same documents is to more than one place.
- Administrative transfer to main trunk groups is assumed to be the source allocation type, unless otherwise indicated.
- Administrative transfer to 2000/Y series groups is assumed to be "additional information".
- If needed, instructions for allocation type should be indicated within the angle brackets using the abbreviations "ADD" or "INV": <administrative transfer to XX ADD> , <administrative transfer to XX INV>, or < administrative transfer to XX ADD, YY INV, ... and ZZ ADD simultaneously>.
- In certain situations, the "D" entries of 2000-series or Y-series groups may not require a destination ("Transferred to") symbol, however it is required to specify "<no transfer>" in the "Transferred to" column for such cases.
- For finalisation projects, the deleted "F" symbols should have <no transfer> in the "Transferred to" column.
- For more details about the types of scheme change, see CPC Guide.

2. A. DEFINITIONS (new)

Insert: The following new Definitions.

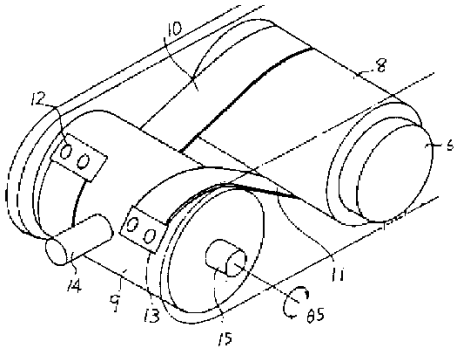
F16H 19/005

Definition statement

This place covers:

Mechanisms conveying limited rotary motion by a flexible member

Example:



F16H 19/006

Definition statement

This place covers:

Mechanisms converting reciprocating movements by a flexible member.

Example:

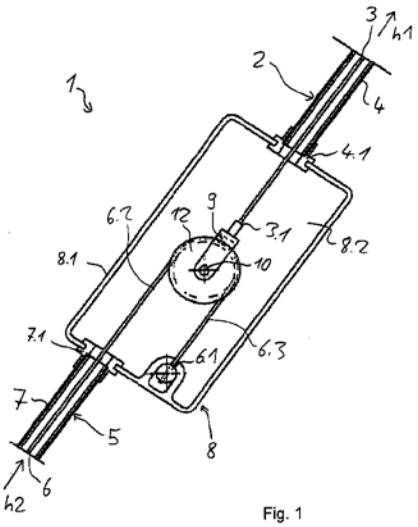


Fig. 1

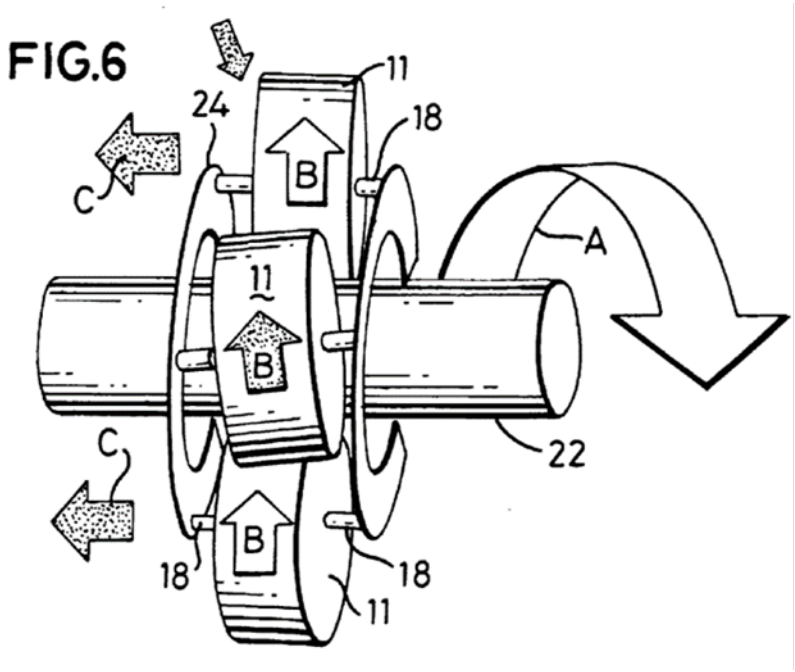
F16H 19/025

Definition statement

This place covers:

Gearings similar to screw-nut mechanisms, however there is friction instead of a thread.

Example:
Rotation of shaft 22 results in an axial movement of the carrier 24.



References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Screw-nut mechanisms	F16H 25/20
Screw-nut mechanisms with rollers	F16H 25/2247

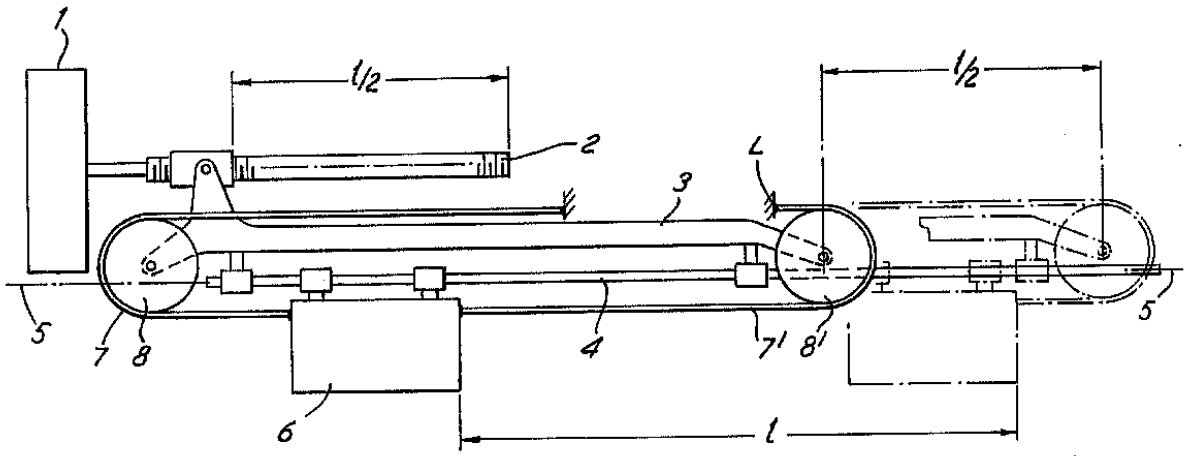
F16H 19/0604

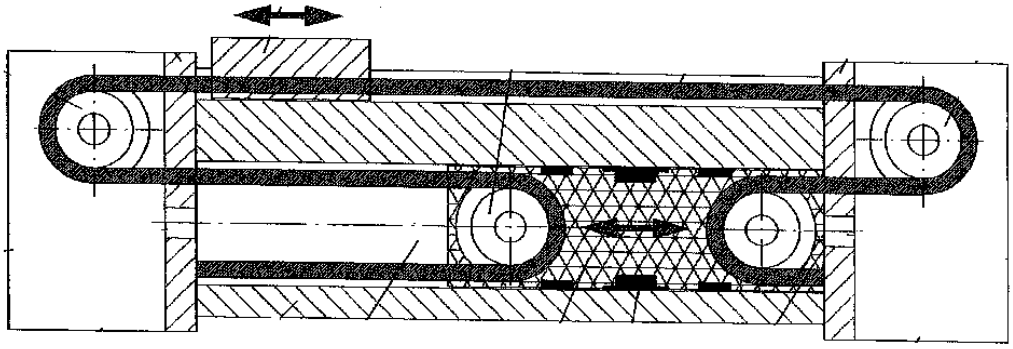
Definition statement

This place covers:

Mechanisms where the output movement is half or double compared with the movement of the input.

Example:





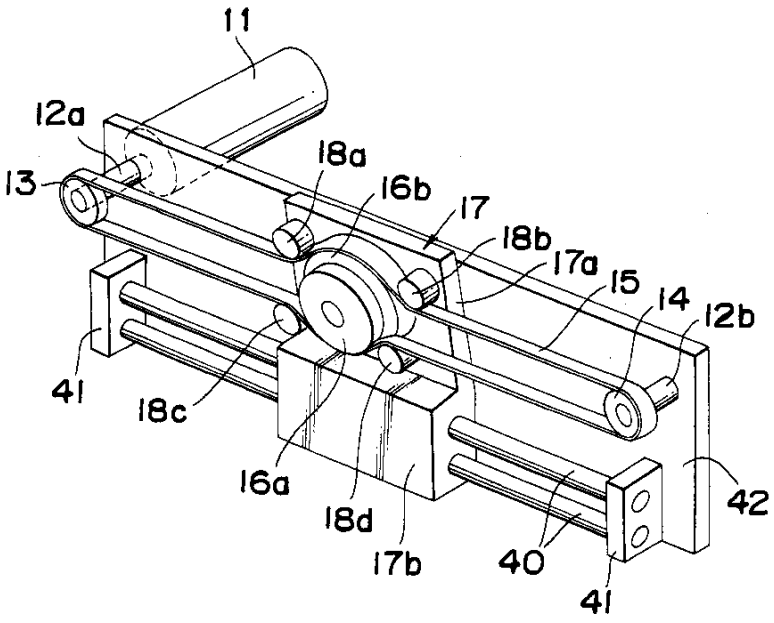
F16H 2019/0609

Definition statement

This place covers:

Mechanisms where the differential effect by using at least one drum or pulley with different diameters is creating the reciprocating movement.

Example:

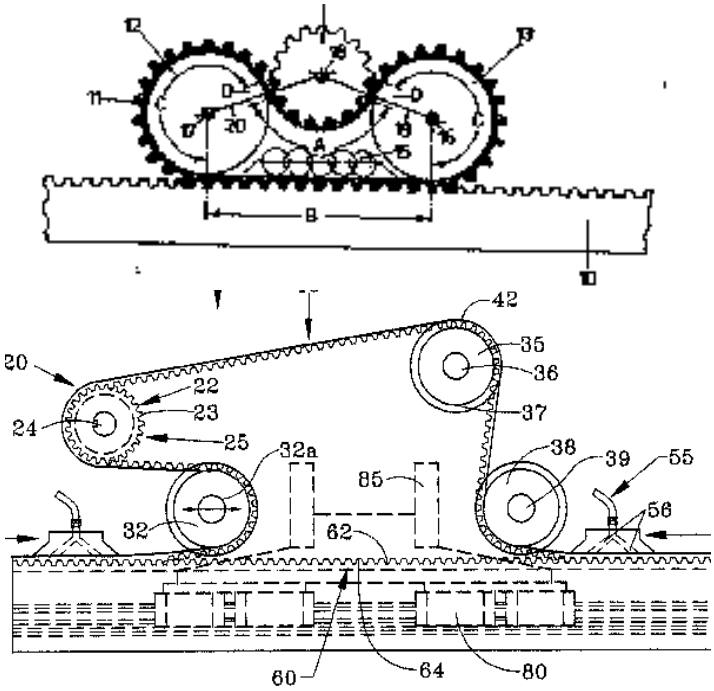


F16H 2019/0613

Definition statement

This place covers:

Example:



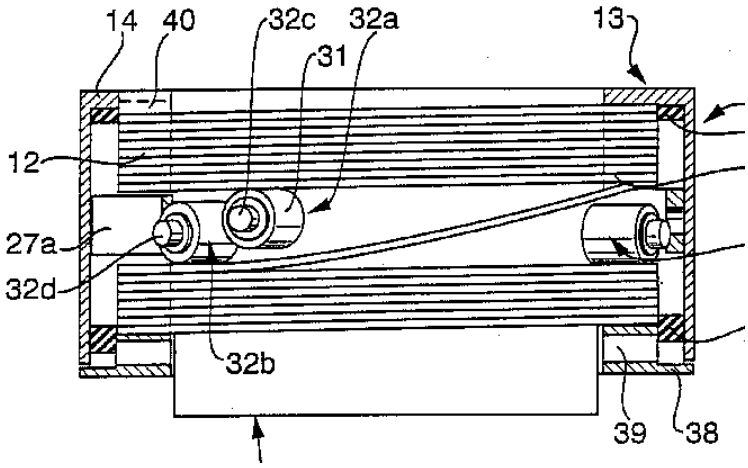
F16H 19/0618

Definition statement

This place covers:

Mechanisms where the on-winding and off-winding on a drum create axial movement parallel to the drum.

Example:



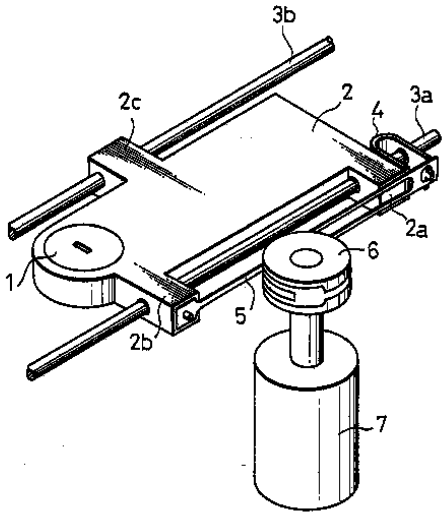
F16H 19/0622

Definition statement

This place covers:

Mechanisms where oscillating movement is converted into reciprocating movement perpendicular to the axis of oscillation or vice versa, e.g. by on-winding and off-winding a flexible member on a drum or pulley.

Example:



F16H 19/0628

Definition statement

This place covers:

Mechanisms where oscillating movement is converted by on-winding and off-winding of a flexible member on a drum into reciprocating movement perpendicular to the axis of oscillation.

Example:

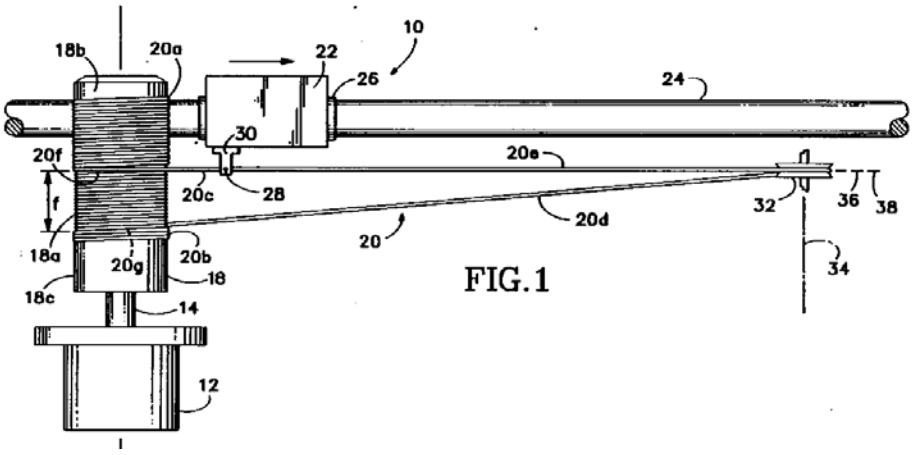
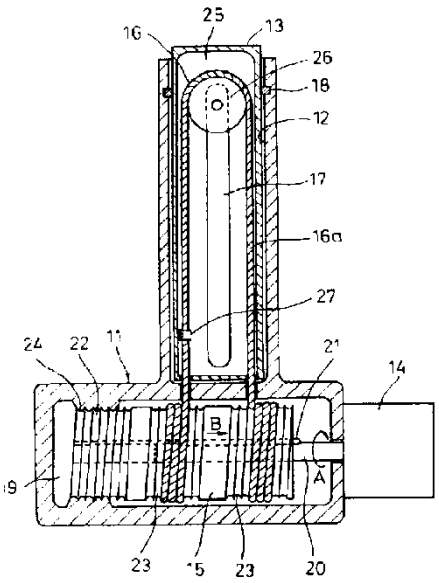


FIG.1



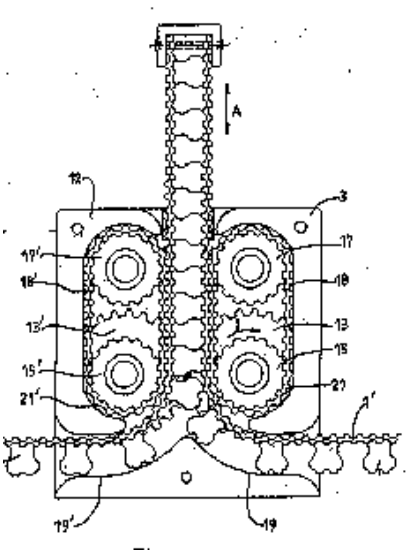
F16H 19/0636

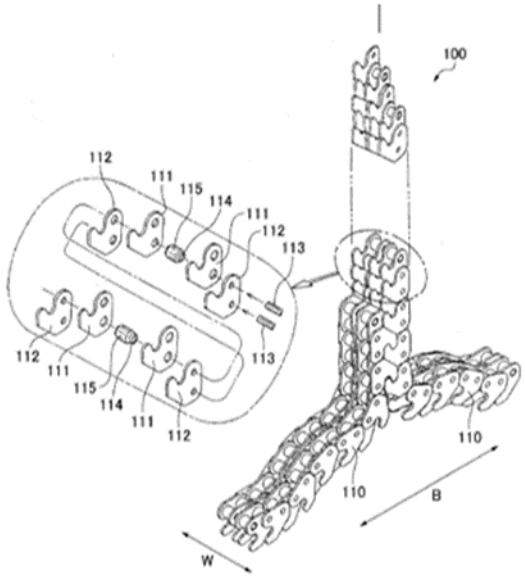
Definition statement

This place covers:

Gearings comprising essentially only toothed gears or friction members and not capable of conveying indefinitely-continuing rotary motion, whereby the gearings are for interconverting rotary (or oscillating) motion and reciprocating motion and comprise an endless flexible member, the flexible member being a non-buckling chain.

Example:





References

Informative references

Attention is drawn to the following places, which may be of interest for search:

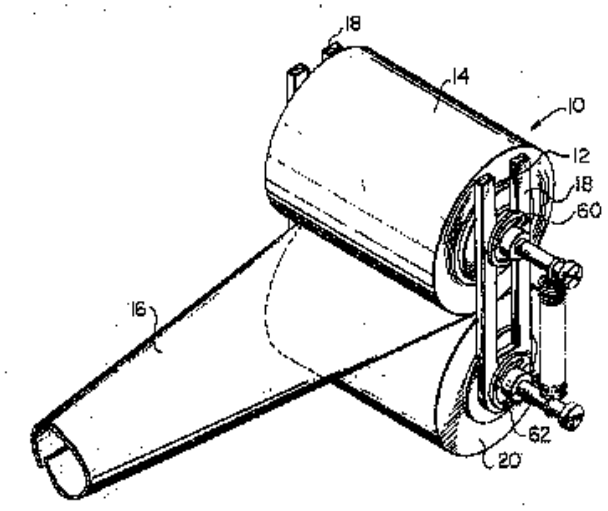
Devices, e.g. jacks, adapted for uninterrupted lifting of loads with racks actuated by pinions	B66F 3/02
Devices, e.g. jacks, adapted for uninterrupted lifting of loads with racks comprising pivotable toothed sections or segments, e.g. arranged in pairs	B66F 3/06
Chains having special overall characteristics: stiff; Push-pull chains	F16G 13/20

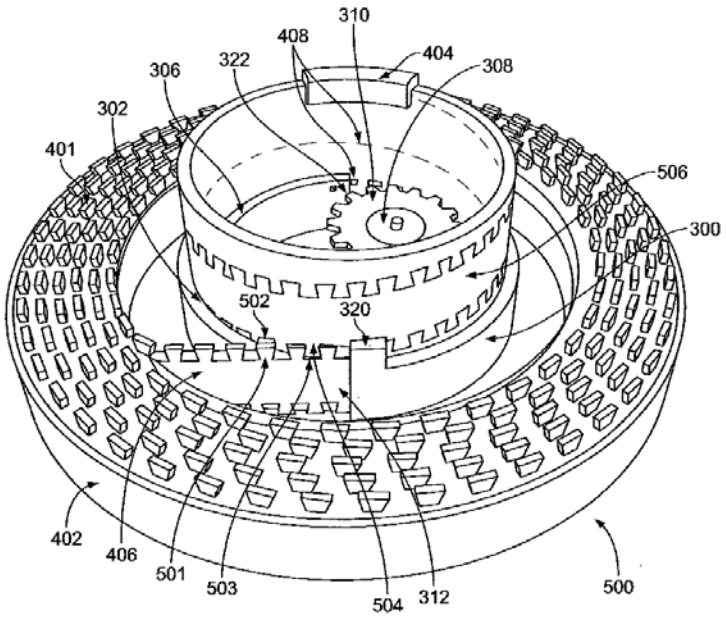
F16H 19/064

Definition statement

This place covers:

Example:



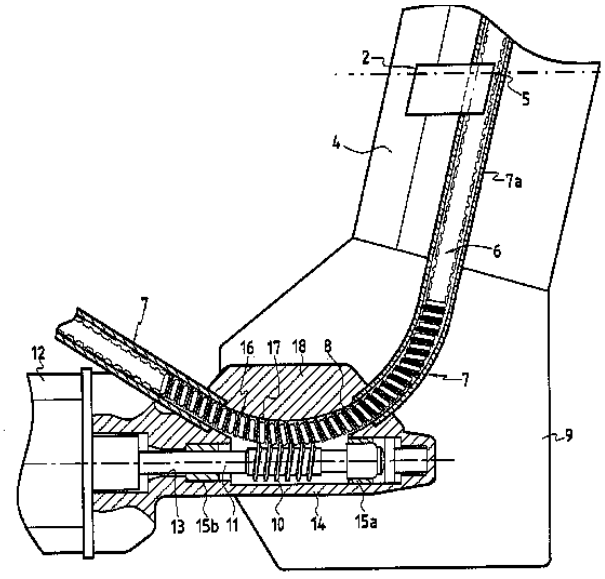


F16H 19/0645

Definition statement

This place covers:

Example:



References

Limiting references

This place does not cover:

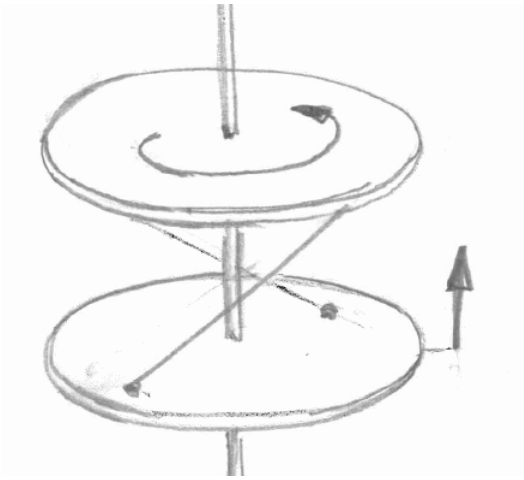
Non-buckling chains	F16H 19/0636

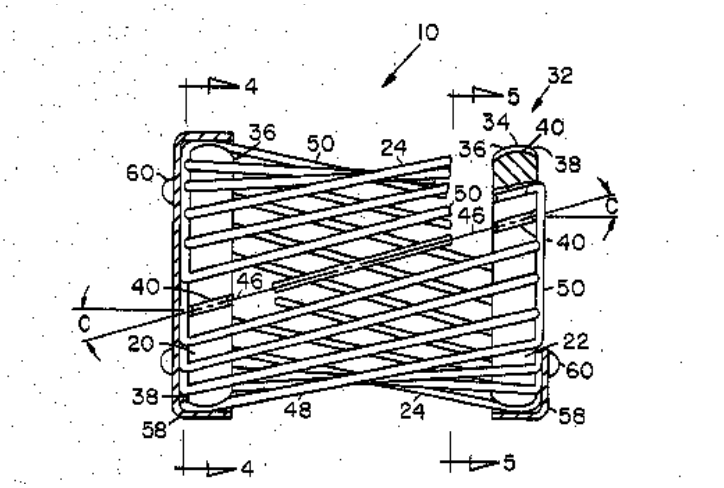
F16H 19/065

Definition statement

This place covers:

Example:





F16H 19/0654

Definition statement

This place covers:

Example:

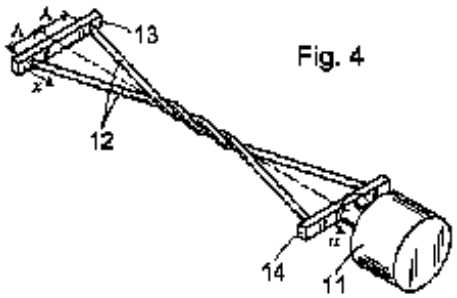


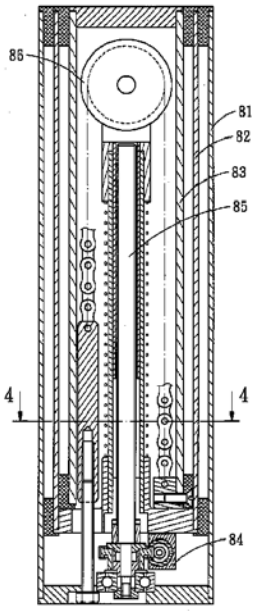
Fig. 4

F16H 19/0663

Definition statement

This place covers:

Example:

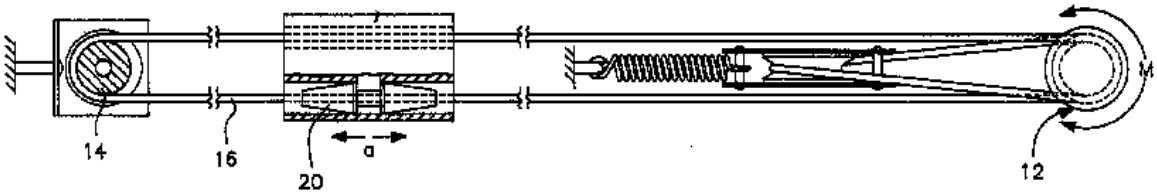


F16H 19/0672

Definition statement

This place covers:

Example:

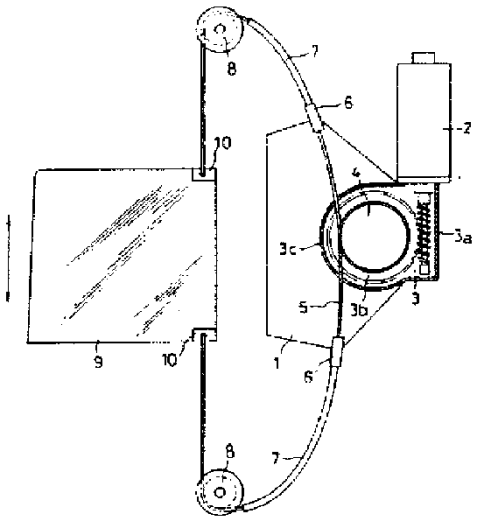


F16H 2019/0681

Definition statement

This place covers:

Example:

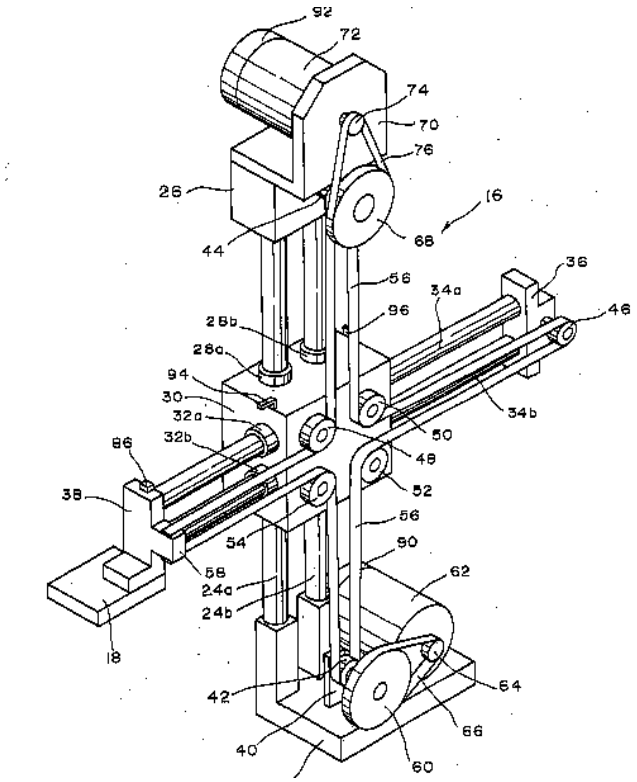


F16H 2019/069

Definition statement

This place covers:

Example:

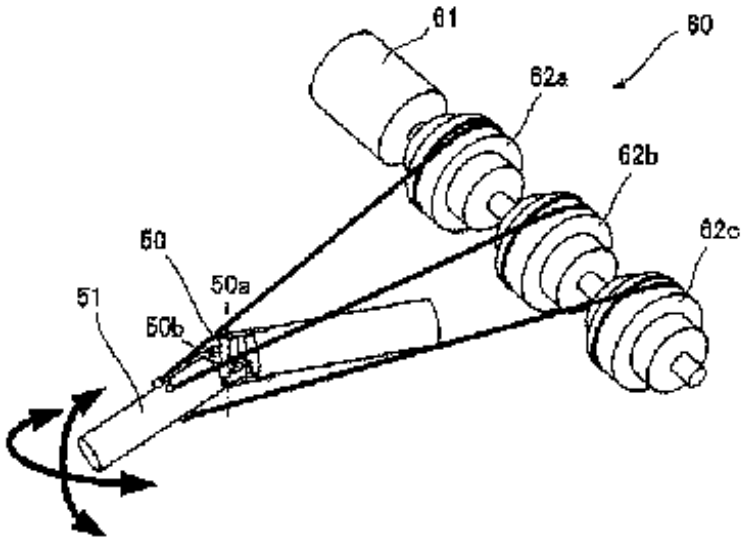


F16H 2019/0695

Definition statement

This place covers:

Example:



2. B. DEFINITIONS QUICK FIX

Symbol	**Location of change** (e.g., section title)	**Existing reference symbol or text**	**Action; New symbol; New text**
F16H 48/00	Special rules of classification		Insert: The following new sentence at the end of the existing Special rules text. Gears having orbital motion for change speed gearing are classified in F16H 3/44.
F16H 55/17	Limiting references		Delete: The following Limiting references table row. Wheels having constructively simple tooth shapes, e.g. pins or balls F16H 55/10

Symbol	**Location of change** (e.g., section title)	**Existing reference symbol or text**	**Action; New symbol; New text**
F16H 55/17	Special rules of classification		Insert: The following new Special rules of classification section and text. **Special rules of classification** Wheels having constructively simple tooth shapes, e.g. pins or balls, are additionally classified in F16H 55/10. The use of material is additionally classified in F16H 55/06. In particular, moulded gears are additionally classified in F16H 2055/065. Looping references between F16H 55/17 and F16H 55/22 have been identified. Until this inconsistency is resolved in IPC, the current classification practice in CPC is as defined in the Limiting references sections of the definitions.

Symbol	**Location of change** (e.g., section title)	**Existing reference symbol or text**	**Action; New symbol; New text**
F16H 55/18	Limiting references		Delete: The following two Limiting references table rows. Means for taking up backlash at worm wheels F16H55/24 Means for taking up backlash at racks F16H55/28
F16H 55/18	Limiting references		Insert: The following new row into the Limiting references table. Arrangements for adjusting or for taking-up backlash for planetary gearings conveying rotary motion F16H 1/2863
F16H 55/18	Informative references		Delete: The following Informative references table row. Arrangements for adjusting or for taking-up backlash for planetary gearings conveying rotary motion F16H 1/2863
F16H 55/18	Informative references	Arrangements for adjusting or for taking-up backlash not provided for elsewhere F16H 57/12	Replace: The text of the existing Informative references table row so that the row reads as follows. Arrangements for adjusting or for taking-up backlash by modification of axle distance F16H 57/12

Symbol	**Location of change** (e.g., section title)	**Existing reference symbol or text**	**Action; New symbol; New text**
F16H 55/18	Special rules of classification		Insert: The following new Special rules section and text. **Special rules of classification** Means for taking up backlash at worm wheels are classified in F16H 55/24. Means for taking up backlash at racks are classified in F16H 55/28.
F16H 55/22	Limiting references		Delete: The entire Limiting references section and table.
F16H 55/22	Informative references		Insert: The following new row into the Informative references table. Bevel gears, crown wheels or helical gears F16H 55/17
F16H 55/22	Special rules of classification		Insert: The following new Special rules section and text. **Special rules of classification** Looping references between F16H 55/17 and F16H 55/22 have been identified. Until this inconsistency is resolved in IPC, the current classification practice in CPC is that F16H55/17 is a non-limiting reference for F16H55/22.

NOTES:

- The table above is used for corrections or modifications to existing definitions, e.g. delete an entire definition or part thereof; propose new wording or modify wording of a section, change the symbol the definition is associated with, change or delete a reference symbol, etc.
- Do not delete (F) symbol definitions.

3. REVISION CONCORDANCE LIST (RCL)

Type*	**From CPC Symbol (existing)**	**To CPC Symbol(s)**
D	F16H 2019/0627	<Administrative transfer to F16H 19/0628 INV>
D	F16H 19/0631	<Administrative transfer to F16H 19/0628>
D	F16H 2048/108	<Administrative transfer to F16H 48/11 INV>

* C = entries with modified file scope where reclassification of documents from the entries is involved; Q = new entries which are firstly populated with documents via administrative transfers from deleted (D) entries. Afterwards, the transferred documents into the Q entry will either stay or be moved to more appropriate entries, as determined by intellectual reclassification; D = deleted entries; F = frozen entries will be deleted once reclassification of documents from the entries is completed.

NOTES:

- Only C, D, F, and Q type entries are included in the table above.
- When multiple symbols are included in the "To" column, do not use ranges of symbols.
- For administrative transfer of documents, the following text should be used: "< administrative transfer to XX>", "<administrative transfer to XX and YY simultaneously>", or "<administrative transfer to XX, YY, ...and ZZ simultaneously>" when administrative transfer of the same documents is to more than one place.
- Administrative transfer to main trunk groups is assumed to be the source allocation type, unless otherwise indicated.
- Administrative transfer to 2000/Y series groups is assumed to be "additional information".
- If needed, instructions for allocation type should be indicated within the angle brackets using the abbreviations "ADD" or "INV": <administrative transfer to XX ADD>, <administrative transfer to XX INV>, or < administrative transfer to XX ADD, YY INV, ... and ZZ ADD simultaneously>.
- In certain situations, the "D" entries of 2000-series or Y-series groups may not require a destination ("To") symbol, however it is required to specify "<no transfer>" in the "To" column for such cases.
- RCL is not needed for finalisation projects.

4. CHANGES TO THE CPC-TO-IPC CONCORDANCE LIST (CICL)

CPC	**IPC**	**Action***
F16H 2019/0627		DELETE
F16H 19/0628	F16H 19/06	NEW
F16H 19/0631		DELETE
F16H 2048/108		DELETE

*Action column:

- For an (N) or (Q) entry, provide an IPC symbol and complete the Action column with “NEW.”
- For an existing CPC main trunk entry or indexing entry where the existing IPC symbol needs to be changed, provide an updated IPC symbol and complete the Action column with “UPDATED.”
- For a (D) CPC entry or indexing entry complete the Action column with “DELETE.” IPC symbol does not need to be included in the IPC column.
- For an (N) 2000 series CPC entry which is positioned within the main trunk scheme (breakdown code) provide an IPC symbol and complete the action column with “NEW”.
- For an (N) 2000 series CPC entry positioned at the end of the CPC scheme (orthogonal code), with no IPC equivalent, complete the IPC column with “CPCONLY” and complete the action column with “NEW”.

NOTES:

- F symbols are <u>not</u> included in the CICL table above.
- T and M symbols are not included in the CICL table above unless a change to the existing IPC is desired.